

a golfer hits a .23kg
golf ball with a velocity of
75m/s EAST.

What is the momentum of the
golf ball?

$$p = 17.25 \text{ kg m/s E}$$

① $m = .23 \text{ kg golf ball}$
 $v = 75 \text{ m/s EAST}$

$$p = ?$$

② $p = m \cdot v$

③ $p = (.23 \text{ kg})(75 \text{ m/s E})$

MAN HAS A MASS OF 70 kg
 WOMAN HAS A MASS OF 55 kg
 The woman HAS A velocity of
 15 m/s EAST, what must the man's
 velocity be to equal the woman's?

MAN	WOMAN
MASS = 70 kg	$m = 55 \text{ kg}$
$v = ?$	$v = 15 \text{ m/s E}$
$p_m = 825 \text{ kg m/s}$	$p_w = m v = (55 \text{ kg})(15 \text{ m/s E})$
$p_m = m v$	$p_w = 825 \text{ kg m/s E}$
$825 = 70(v)$	
$\frac{825}{70} = \frac{70(v)}{70}$	
11.79	
m/s W	